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93. MAY 30. No. 10,639.

'S COMPLETE SPECIFICATION.

Fig.1.

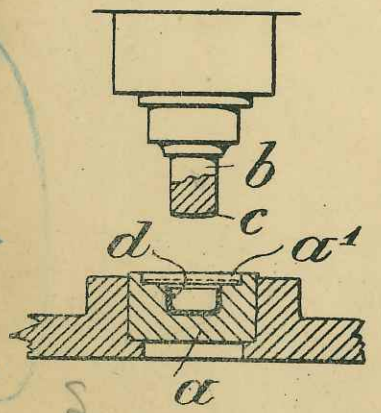


Fig.2.

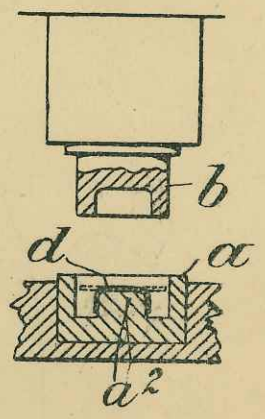


Fig.4.

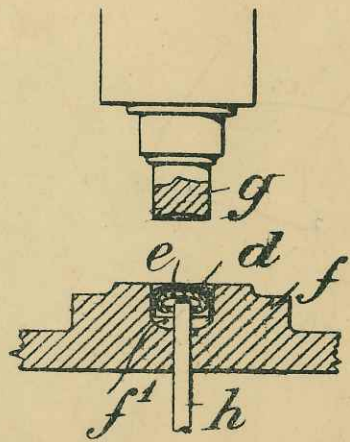


Fig.5.

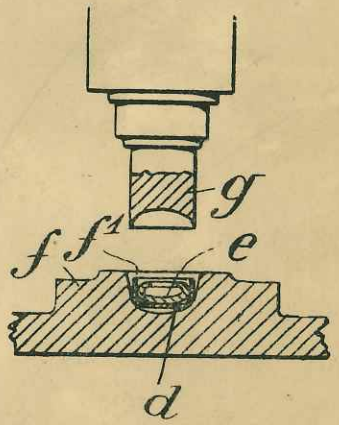
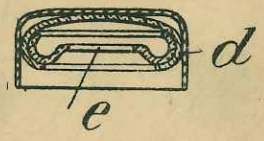


Fig.3.

Fig.6.



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Malby & Sons, Photo-Litho.

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N° 10,639 A.D. 1893

Date of Application, 30th May, 1893—Accepted, 1st June, 1893

COMPLETE SPECIFICATION.

Improvements relating to the Manufacture of Buttons.

I, AUGUST DENK, of VII Seidengasse 33, Vienna, in the Empire of Austria, Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

Hitherto buttons and button-forms have been made of metal, mother-of-pearl, horn, wood, and the like some of which have been eventually covered with cloth.

My invention relates to buttons and button forms covered with thin plates of celluloid, xylonite or ebonite, transparent or opaque, coloured or otherwise and to a process for manufacturing the same.

According to my said invention, a small plate of celluloid, xylonite or ebonite is cut or stamped and pressed into the shape of a calotte or cap, the said calotte or cap is placed upon the button or form and pressed down upon the latter, so as to make it adhere closely to the outer surface of the said button or form.

In consequence of this operation, the rims of the cap are bent downwards and around so that the covering thus formed cannot detach itself from the button.

The apparatus for manufacturing these buttons may be arranged in any suitable manner.

In the accompanying drawing

Figure 1 is a view partly in section of my apparatus for shaping the forms.

Figure 2 is a modified form of the same.

Figure 3 is a sectional view of cap drawn to an enlarged scale.

Figures 4 and 5 are views partly in section showing the method of pressing the caps over the button or forms and

Figure 6 is an enlarged view of the button or form provided with the cap of celluloid, xylonite or ebonite, before the second operation.

The apparatus shown in Figure 1 consists of a matrix *a*, hollowed out to correspond to the shape of the cap which it is desired to obtain, and a die *b* the under part of which is covered with a thin layer of leather *c*.

The matrix *a* is provided on its upper face with a recess a^1 in order to facilitate the setting in of the celluloid plate *d* before pressing. When the die *b* is lowered, the plate *d* of celluloid, xylonite or ebonite is driven within the central recess of the matrix *a* consequently receiving the shape of a cap.

In order to prevent the rims of the cap *d* forming any folds or creases, the matrix is heated from beneath by gas or other suitable means.

In the apparatus shown in Figure 2, the recess of the matrix *a* is provided with an anvil a^2 upon which a hollow die *b* presses the celluloid plate.

The cap having been shaped is placed upon the button or form *e*, (see Figure 6) these two parts are pressed together in order that the cap *d* may adhere closely all over the said button or form.

This operation may be effected by means of the apparatus shown in Figures 4 and 5.

In the apparatus shown in Figure 4 the matrix is intended to receive the button or form *e*, with the cap *d* placed upon it. The said matrix having the lower part of the recess f^1 dished in such a manner that, when the die *g* is lowered, the rims of the cap are forciby bent inwards and close tightly around the button or form *e*.

This die has its under face shaped to correspond to the form of the finished button with its celluloid covering ; in the apparatus shown the die is somewhat hollowed out, *h* is an ejector actuated by a spring to facilitate the placing of the button in the matrix *f* and also to cause the button to be ejected after the pressing

operation. My apparatus can be modified in such a manner that the die may cause the folding down of the rims of the cap and the closing of the said rims around the button or form.

In this case, the two working parts of the apparatus receive the form shown in Figure 5.

The recess f^1 of the matrix f is preferably arranged to splay out upwards in order that the edge of the die g may easily pass between the cap and the inner wall of the recess f^1, and consequently effect the folding down of the rim of the cap.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is :—

1. As a new article of manufacture, buttons and button forms covered with celluloid, xylonite or ebonite, substantially as described and shown.

2. The herein described process consisting in pressing, between a heated matrix *a* and a die *b*, small plates of celluloid xylonite or ebonite so as to give them the shape of calottes or caps (Figure 6) and in placing these caps over the button forms and finally in submitting the caps and forms to pressure in order to make them adhere closely to one another in such a manner that the form is grasped by the rims of the cap, which are doubled over, substantially as described and shown.

Dated this 30th day of May 1893.

HASELTINE, LAKE & Co.,
45, Southampton Buildings, London, W.C., Agents for the Applicant.

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DENK-10,639 AD 1893

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A.D. 1893. May 30. N° 10,639.

DENK'S Complete Specification.

Fig.1.

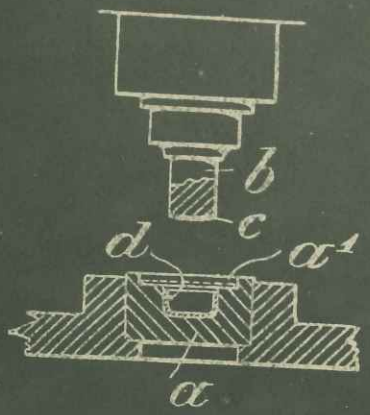


Fig.2.

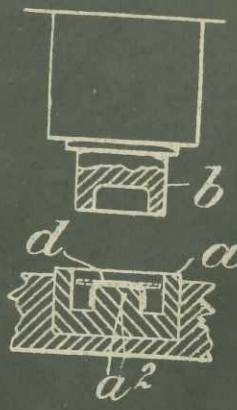


Fig.4.

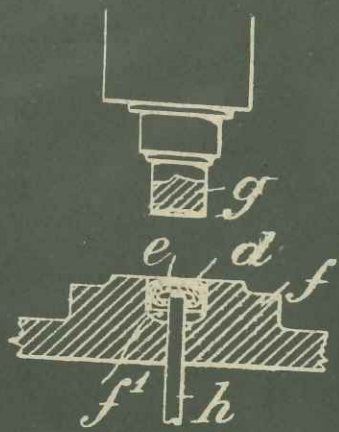


Fig.5.

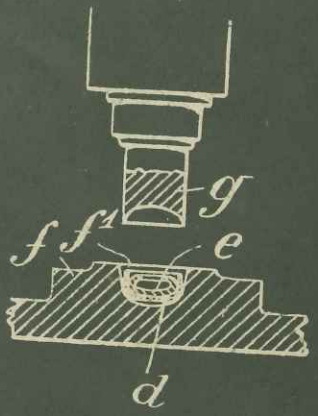
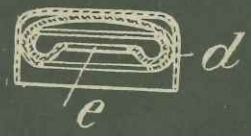


Fig.3.

Fig.6.



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